EXPLANATION OF SIGNIFICANT DIFFERENCES
Jennison Wright National Priorities List Site
1190400008 – Madison County
ILD 006 282 479
Granite City, Illinois

Site Introduction and Statement of Purpose

The Jennison-Wright Corporation site is made up of approximately 20 acres of land at 900 West 22nd Street within the corporate boundaries of Granite City, Illinois. The facility was used to treat wood products with pentachlorophenol (PCP), creosote, and zinc naphthenate. The site has remained vacant since 1990, except for the occasional trespasser or scavenger and periodic visits by Illinois Environmental Protection Agency (Illinois EPA) personnel and its contractors. Illinois EPA is acting as the lead agency with support from the United States Environmental Protection Agency (U.S. EPA).

Due to past treatment practices, the surface and subsurface soil, surface water, and groundwater has been impacted by the mentioned contaminants. The site is a State Lead site and the remediation efforts are being addressed through both federal and state authorities. The U.S. EPA is serving as the support agency.

This Explanation of Significant Difference (ESD) is being written pursuant to Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA or Superfund). In addition, this ESD is being written pursuant to the National Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) 300.435(c)(2)(i). This ESD will be incorporated into the Administrative Record File as provided for in the NCP at 40 CFR 300.825(a)(2).

The Illinois EPA reached a decision on a final remedial action plan and documented its decision in the Record of Decision (ROD) that was signed by Illinois EPA Director Thomas V. Skinner on September 29, 1999. This ROD included a discussion of Illinois EPA's reasons for the final plan and reasons for any significant changes from the proposed remedial action contained in the Feasibility Study.

Basis for the Document

The purpose of this document is to justify the need for a significant variance from the originally selected remedy. The treatment method for remediating the contaminated soil at the Jennison-Wright Superfund Site is different than was specifically detailed in the ROD.

The ROD stipulated that the contaminated soils at the site should be treated via landfarming in an on-site treatment unit. At the time of the ROD signing, estimates for other treatment and removal technologies were considered, but rejected because of cost, implementability, or effectiveness concerns.

Since then, however, the cost of one of the discussed alternatives for the soils unit has become more economical and now represents the best alternative of the discussed alternatives for treatment of the soils. Under this new alternative, contaminated soil and waste will be excavated, loaded into dump trucks, and transported to Milam Landfill in Fairmont City, Illinois for disposal. As this method of treating the soils was not the method specified in the ROD or the Consent Order, this ESD will serve to inform the public of the change.

This ESD is being written pursuant to 40 CFR 300.435(c)(2)(i). This ESD will be incorporated into the Administrative Record File as provided for in 40 CFR 300.825(a)(2). Copies of this file can be found at the Granite City Public Library located at 2001 Delmar Avenue in Granite City, Illinois. The revised portion of this remedy complies with the NCP and the statutory requirements of CERCLA.

Site History

Operations at the facility began prior to 1921 and continued until 1989 with three separate companies operating at the site: Midland Creosoting Company (prior to 1921 through 1940), The Jennison-Wright Corporation (1940 through1981) and 2-B-J.W., Inc (1981 through 1989), authorized to do business as Jennison-Wright Corporation. Jennison-Wright Corporation filed for Chapter 11 Bankruptcy in November 1989, with an auction held in 1990 to sell the remaining equipment and materials. The site has remained vacant since 1990, except for the occasional trespasser or scavenger and periodic visits by Illinois EPA personnel. More information can be viewed in the original Record of Decision (ROD) and the Administrative Record for this site.

The Jennison-Wright Corporation site is a triangular-shaped facility that is bisected by 22nd Street in Granite City creating a north and south portion. The area north of 22nd Street treated wood products (railroad ties and wood block flooring) with pentachlorophenol (PCP), creosote and zinc naphthenate. Creosote was used for treating wood products prior to 1921 to 1989. Pentachlorophenol was used from 1974 to 1985 and zinc naphthenate was used from 1985 to 1989.

Jennite (an asphalt sealer product composed of coal tar, pitch, clay, and water) was manufactured in the southeastern corner of the facility. The process began in the early 1960s and continued until the summer of 1986 when Jennison-Wright sold the Jennite process to Neyra Industries. Neyra Industries leased the portion of the facility used by Jennison-Wright for the sealer, and continued manufacturing the asphalt sealer until the bankruptcy in 1989.

In the summer of 1992, the Illinois EPA used trust fund monies from the bankruptcy sale to initiate a stabilization effort on this site to alleviate the spread of contamination. The east boundary of the south portion of the site contains the Jennite pit (an on-site disposal pit where creosote wastes were dumped) that had become semi-liquid and begun to migrate off-site.

To temporarily alleviate this problem, the overflowing material was removed and placed in three cut-off tanks. A makeshift clay cap was constructed using materials on site to shore up the boundaries of the Jennite pit. Approximately 175 drums of various known and unknown materials were found on-site including 15 drums of creosote contaminated asbestos insulation. These drums were stored on-site in an existing structure.

On November 17, 1994, Reidel Environmental Services was mobilized for a planned removal action, under the CERCLA engineering evaluation/cost analysis (EE/CA) removal authorities. Per the EE/CA, the completed actions are as follows:

- Installation of a six-foot chain link fence around the area of stockpiled soil and drainage area at the northeast corner of the site;
- Excavation and disposal of soils around the upright storage tanks, railroad cars;
- Removal of aqueous waste from the various storage vessels, treatment by oil/water separation, and off-site disposal at a water treatment plant;
- Removal and disposal of creosote waste material from the storage vessels;
- Decontamination/dismantling of the storage vessels;
- Characterization of the material within the drums inside the Transite building and proper disposal;
- Installation of a protective geomembrane and clay cap over the Jennite pit.
- Removal of the contaminated soil in the three cutoff tanks in the south portion of the site and dismantling of the tanks.

The site was finalized on the National Priorities List on June 16, 1996.

Subsequent to the site being listed on the NPL, Illinois EPA conducted a focused investigation to determine the nature and extent of the contamination at the site along with comparisons of different possible remedial actions for the site environmental problems. On September 29, 1999, Illinois EPA, in conjunction with U.S. EPA, signed a Record of Decision to memorialize the remedial action determinations for the site.

The selected remedy is comprised of treatment options in five operable units (OUs). This remedy comprises the overall remedy for the entire site.

- For site wastes consisting of the drip track residue and the oils found on-site, the selected alternative is to remove the waste and have it disposed at a hazardous waste facility.
- For site soils, a landfarm will be constructed in the northeast portion of the site.

- For Non-Aqueous Phase Liquid (NAPL) removal, hot water and steam flushing is the selected alternative over surfactant flushing because it is a more proven technology.

- For the more highly contaminated groundwater plumes, the preferred alternative is enhanced in situ biological treatment using Oxygen Release Compounds (ORC) and air sparging rather than natural attenuation and ex situ biological treatment. Natural attenuation is the selected alternative for the other areas of the site where the groundwater contamination is at a much lower level.

- The buildings and other structures on the site will be razed and the asbestos-containing materials inside will be abated.

- The selected alternative for the "Miscellaneous Items" category is to remove the remaining miscellaneous items (debris piles, storage tanks, abandoned steel trams and several sumps and pits) that litter the site.

The full text of the selected remedy can be found at: www.epa.gov/superfund/sites/rods/fulltext/r0599077.pdf.

It is important to note that while the remedy also calls for institutional controls to be put in place to restrict future usage of the site to commercial/industrial purposes, these controls have yet to be put into place as the site is years from being in a position where it could be utilized.

During Federal Fiscal Year (FFY) 2002, Illinois EPA submitted to U.S. EPA a complete Remedial Action design for the Jennison-Wright site along with an application for funding in the amount of $10,155,309. In absence of the necessary funds to complete the entire remedy, Illinois EPA expended the remaining $525,000 of federal funding and additional undedicated funding to complete the demolition portion of the remedy.

The following construction activities were completed during the summer of 2003 using the available funds:

- Clearing and grubbing of site vegetation;

- Demolition and removal of all on-site structures including slab foundations;

- Asbestos abatement;

- Demolition and removal of two silos;

- Content disposal for two aboveground storage tanks (ASTs), two underground storage tanks (USTs), one oil/water separator and one concrete basin;

- Removal and disposal of two ASTs, two USTs, and one oil/water separator;

- Removal of debris piles consisting of varying amounts of concrete, scrap metal, wood, and trash, and;

- Excavation of a limited amount of the drip track residue from the north portion of the site.

In Autumn, 2004, U.S. EPA granted Illinois EPA partial funding for the beginning of remedial efforts at the site in the amount of $3.5 million. With this available funding, it was determined that a portion of the remedy could be completed. The portions of the remedy to be completed would consist of treatment of site soils in the biological landfarm, and removal of a limited amount of listed hazardous waste.

Description of Significant Differences

As mentioned before, the soil treatment method selected in the 1999 ROD involved using an on-site biological landfarm as the method of treatment for site soils. When remedial alternatives were being evaluated, landfarming represented the best balance between effectiveness, implementability, cost, and public acceptance. Since that time, the costs of other alternatives analyzed in the ROD have come down considerably, which makes it viable to considered another final alternative: Offsite Disposal.

Consequently, Offsite Disposal has actually become the cheaper alternative while remaining implementable and effective. Additionally, removal is superior to land farming in elimination of risk as the material will no longer be on site.

The removal alternative will achieve the soil remediation in a far shorter period of time than the landfarming alternative. The projected time to complete the landfarming alternative is 3 to 5 years while the expected time for the removal completion is six months. The cleanup objectives for this alternative will not change.

Basis for the Document

Off site disposal was discussed in the Record of Decision. The determining factor against disposal during the evaluation process was cost. At the time, the costs for off site disposal were significantly higher than the landfarming alternative (greater than $14,000,000 compared to $3,540,000 respectively). In addition, the protectiveness will be slightly better than landfarming and be completed more quickly.

From the original EE/CA for the Site that served as the basis for the design of the remedy, the originally projected cost for removal of the site soils amounted to over $14,000,000. The assumption at the time was based on previous determinations that all soil in the affected areas might be considered listed or characteristically hazardous waste, leading to a much higher disposal cost. Since that time, the determination was made that just because soil at a site is contaminated with the hazardous constituents found in the listed hazardous waste, it does not necessarily mean that all of the contaminated soil at the site contains listed hazardous waste. This determination paved the way to a determination that soil around the site that was not

part of the normal process of treating wood products and did not exhibit the characteristics of a hazardous waste would not need to be treated as such.

Through sampling of site soils that might fall into the non-listed category, Illinois EPA made the determination that the majority of the soil that would have been treated in the biological landfarm could be considered non-hazardous special waste pursuant to the Resource Conservation and Recovery Act of 1976, as amended (RCRA) State regulations. With this in mind, bids were solicited from local landfills to accept this waste. With the cost of backfill incorporated, the cost of the soil removal option fell to less than $2,000,000.

Description of New Alternative

Under this alternative, contaminated soil and waste will be excavated, loaded into dump trucks, and transported to Milam Landfill in Fairmont City, Illinois for disposal. The excavated areas will then be backfilled with clean material and seeded. Excavation is an effective method for physically removing contaminated subsurface material from the site. Excavation involves the use of standard construction equipment. There are no limitations on the types of waste that can be excavated and removed.

Off-site disposal of wastes are subject to RCRA requirements and to Illinois EPA's off-site disposal policy. Because the contaminated soils and wastes would be disposed of off site, there will be no institutional controls associated with this alternative. It is estimated that this alternative would take several months to complete.

ARARs for this alternative are the same as those for the landfarm alternative with the following exception. The excavated soils will be classified as non-hazardous special waste. Therefore, statutory requirements of 35 Illinois Administrative Code (IAC) 808 through 815, which cover solid waste disposal requirements, will be considered ARARs. Finally, TCLP results from the site investigation indicated that surface soil, subsurface soil, and sediments are not characteristic hazardous wastes. Based on the analytical results and the U.S. EPA RCRA guidance for soils left in place, the RCRA closure and post-closure requirements and the Treatment Surface Impoundment Exemption (35 IAC 728.104) do not apply.

Support Agency Comments

Illinois EPA has the lead role for this Site. The U.S. EPA has the support role. U.S. EPA had only minor comments and they have been incorporated into this document.

Statutory Determinations

This remedy, as modified, satisfies the requirements of Section 121 of CERCLA. Considering the new information that has been developed and the changes that have been made to the selected remedy, Illinois EPA and U.S. EPA believe that the remedy remains protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to this remedial action, and is cost-effective. In addition, the revised remedy utilizes permanent solutions to the maximum

extent practicable for this site and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

Public Participation Compliance

This ESD is being made available pursuant to 40 CFR 300.435(c)(2)(i). This section of the NCP requires Illinois EPA to publish an ESD when the differences in the remedial or enforcement action, settlement, or consent decree significantly change, but do not fundamentally alter the remedy selected in the ROD with respect to scope, performance, or cost. This ESD will be made available to the public by placing it in the Administrative Record File and information repository and the details of this event will also be published in the newspaper. A formal public comment period is not required when issuing an ESD.

Signed

Douglas P. Scott, Director
Illinois Environmental Protection Agency

10-19-05
Date

for
Richard C. Karl, Director
Superfund Division – Region 5
United States Environmental Protection Agency

12/27/05
Date